

## PRACTICAL POINTS ON PRIVATE NURSING

IN CHARGE OF  
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### THE MANAGEMENT OF BLENORRHCEA NEONATORUM, WITH ESPECIAL REFERENCE TO THE DUTIES OF THE NURSE

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THE treatment of purulent conjunctivitis of the new-born should begin with intelligent efforts at prophylaxis in all cases where a competent person is in attendance at the delivery. As the cause of the disease is known to be a specific microorganism from a contaminated birth-canal, our first duty is plain. We must in all cases ascertain if there is a history or evidence of a vaginal discharge, and, if so, take no chances as to its being sterile and innocuous. As there is no efficient germicide which can be used in sufficient quantities to surely and safely destroy all microorganisms in an infected vagina, we must place our dependence, so far as the birth-canal is concerned, upon thorough mechanical cleansing of the parts, preferably with a copious alkaline douche, which will dissolve and wash away all infected mucus. From the stand-point of the obstetrician, the earlier this is done the better, in order that time may elapse for the secretion of a new supply of mucus for the lubrication of the birth-canal. An efficient and harmless solution, which will also be unirritating if it should get into the baby's eyes, is a three per cent. solution of sodium baborate (common borax), or a two per cent. solution of sodium carbonate (sal soda), sterilized by boiling. There is no chemical disinfectant which can be used in sufficient strength to do any good that will not irritate the eye.

In all cases, as soon as the head has escaped from the vulva the nurse should have ready one of the above solutions or a warm solu-

tion of boric acid or common salt, and as soon as possible the face of the child should be carefully bathed and the eyes thoroughly flushed out. In an infected case no time is to be lost, and if there is a delay in the delivery of the shoulders or in the tying of the cord, the time cannot be better spent than in giving attention to this matter. In at least one large lying-in hospital the percentage of cases of this disease has been reduced to an insignificant point simply by the use of warm sterile water for cleansing the lids and conjunctival sac immediately after birth.

For more than a century the nitrate of silver has been used in the treatment of conjunctivitis in all its forms, and for half a century strong solutions of this salt have been our main reliance in the treatment of purulent conjunctivitis of the new-born. For many years this remedy has also been used to neutralize the poison in cases of accidental infection of a healthy eye by a drop of pus from an inflamed one. In 1882 Professor Credé, of Leipsic, proposed the method of prophylaxis in *blenorhœa neonatorum* which bears his name, and which is still in very general use in the large lying-in hospitals of the world. He recommended the routine use of a two per cent. solution of nitrate of silver dropped into the baby's eyes immediately after birth, and the practice of his method in European institutions has resulted in reducing the number of cases of this disease very much. In round numbers, one in ten of the babies born in public institutions before the introduction of this method were afflicted; at present the number is not more than one in five hundred in institutions where the method is thoroughly carried out. It seems to us unwise to recommend so severe a measure as a routine practice, for the reason that a number of cases have been reported in which more or less irritation has developed as a direct consequence of such applications. In the presence, however, of obvious infection there can be no objection to this practice.

Within the past two or three years protargol, an organic salt of silver more penetrating but less caustic than nitrate of silver, has been demonstrated to be quite as efficient in the treatment of the disease under discussion. So far no unpleasant results from the use of protargol have been reported. It is, therefore, perfectly safe to use a ten or twenty per cent. solution of this drug as a prophylactic in all suspected cases as soon as possible after the eyes of the baby have been properly cleansed.

If in spite of all precautions the disease develops, it will be manifested, as a rule, from three to five days after birth by redness of the eye and a slight discharge. It is the duty of the nurse, as well as of the accoucheur, to examine the eyes of the new-born baby each day during

the lying-in period, and at the first sign of trouble, if discovered by the nurse, the attention of the physician should be directed to the matter. During the first two or three days after the disease begins there is usually little or no pus present and comparatively little swelling of the lids, except in the most violent cases. During this so-called first stage the treatment should be that of an ordinary acute catarrhal conjunctivitis,—viz., iced compresses applied for an hour twice a day if the baby is well and strong, gentle flushing of the conjunctival sac with a warm, saturated solution of boric acid or permanganate of potassium, 1 to 2,000, and the application once a day of one or two drops of a ten per cent. solution of protargol. Nitrate of silver should not be used during the first stage of this disease, and in our experience the bichloride of mercury is decidedly irritating. As soon as pus begins to form, the eyes must be cleansed more frequently,—every hour during the day and every two hours during the night,—and the edges of the lids should be kept constantly anointed with sterile vaseline to prevent their agglutination and the retention of the discharge. Drainage is indicated whenever there is suppuration, and if we can prevent the sticking together of the lids in this way, we allow free drainage and reduce the irritation which invariably results from retention of the discharges in these cases. At this time we may also increase the strength of the protargol solution from ten to twenty per cent., and if the application of this solution does not reduce the amount of pus formation after two or three days, it may be used twice each day. It goes without saying that the eyes must first be thoroughly cleansed by gentle irrigation with the boric or permanganate solution before the protargol is applied.

In all cases it will be noticed that after the discharge has been washed away from the everted lids there are strings or shreds of mucus in the folds of the conjunctiva. The nurse should endeavor at each cleansing to wash them out by continuous flushing and gentle manipulation of the lids. If she does not succeed in keeping the eyes free from these shreds, the physician should remove them at least once a day by very careful manipulation with a soft, brush-like swab, made by twisting a bit of sterile cotton on the end of a wooden toothpick. Great care must be used in this procedure, for the inflamed conjunctiva is easily abraded, and each break in its surface affords a new avenue for deeper infection.

If the conjunctiva of the globe becomes swollen and edematous and rolls up over the edge of the cornea, the nutrition of this precious membrane becomes threatened, and inflammation of the cornea, with ulceration or sloughing, is the cause of the blindness which follows this

disease. It is, therefore, necessary to examine carefully the condition of the cornea each day, and at the slightest indication of haziness of its surface the iced compresses should be discontinued and hot fomentations resorted to. They may be applied every three hours for fifteen minutes each time. Great care and judgment are necessary in order that the heat be sufficient to be effective without burning the delicate skin of the lids, and that it be continuous. The compresses should be changed at least every sixty seconds during their application. When the cornea becomes ulcerated, great care must be used in the manipulation of the lids not to make pressure upon the eyeball for fear of causing perforation. If the lids are slippery from the presence of vaseline or discharge, a single thickness of gauze or a little cotton held between the finger and the lid will be found a great help in opening the eye. Free radiating incisions in the overlapping conjunctiva are indicated in threatened strangulation of the vessels at the margin of the cornea. Atropine should be used in all cases where the cornea is involved in the inflammation; one drop of a half per cent. solution every three hours is usually sufficient.

In the very exceptional cases where the twenty per cent. solution of protargol does not produce the desired effect, nitrate of silver is still used in solutions varying from two to twelve per cent. and applied once a day. The application should be absolutely limited to the everted lids, and great care should be exercised that the cornea is perfectly protected, the solution completely neutralized with a normal salt solution, and all shreds of mucus washed away before the lids are allowed to close.

As the discharge of pus begins to diminish, which may not be for several weeks in bad cases, we may somewhat modify our treatment; the strong applications need not be quite so strong, and the cleansing need not be quite so frequent; but the most important item in the treatment of all these cases is the frequent, thorough cleansing of the eyes. We are absolutely opposed, however, to the quite common practice of disturbing these delicate babies every fifteen minutes or half-hour. We must not forget the baby and his general welfare in the treatment of his eyes, and if he is not allowed ample time to rest, and if he is not carefully and well nourished, his resisting power soon becomes so very much reduced that no treatment will save the eyes. It is undoubtedly true that many of these little patients are treated to death, and if the cleansing is thoroughly done as above described each hour and the lids kept constantly anointed, in order to prevent accumulation of the irritating discharge, more frequent cleansing will not be necessary. Great care must also be exercised to prevent much crying of these little patients. They must be kept warm, regularly nursed or fed, and the

slightest derangement of the alimentary canal must be attended to. If the cause of the crying cannot be ascertained and removed, it is wiser to soothe the baby with a simple anodyne than to permit the crying to go on.

For the treatment of the chronic conjunctivitis that follows the more severe acute inflammation nothing is better than a one per cent. solution of protargol applied once a day, or a half per cent. solution of zinc sulphate.

It should not be necessary to point out the danger which lies in all things which come in contact with the discharge from these eyes. The nurse must be constantly on her guard, and must form the habit of not touching her own face or the faces of her companions without first sterilizing her hands. Cotton used about the baby should be destroyed at once, and towels thoroughly boiled before being used again. It is well to put the baby in a sack closed about the neck, or to pin the sleeves down in such a way that he cannot get the hands to the face to become contaminated.

Blenorrhœa neonatorum is responsible for at least twenty-five per cent. of all the blindness in the world, and yet not one case in a hundred should result disastrously if skilfully and patiently managed. In fact, it is the very rare exception for an eye to be lost when treated by the experienced ophthalmologist from the first, with the aid of a good nurse. Without the good nurse the doctor is powerless in these cases, and her responsibility is even greater than his, because upon her constant fidelity and care really depends the sight of a fellow-creature. And what fate more terrible than to live and not to see !

